

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Cancelled)
2. (Currently Amended) A power supply apparatus, comprising:

a capacitor unit formed of a plurality of capacitors;

a microprocessor unit for interrupting charging after a start of charging or interrupting discharging after a start of discharging of the capacitor unit in measuring an internal resistance value of the capacitor unit; and

a detection unit for measuring ~~the~~an internal resistance value of the capacitor unit based on at least one of:

1) a current value in the charging; and one of i) a voltage decrease when the charging is interrupted by the microprocessor unit or ii) a voltage increase when the charging is restarted after the interruption of the charging by the microprocessor unit, wherein in measuring the internal resistance value of the capacitor unit, the charging is interrupted when a voltage across the capacitor is increasing over a period of time during charging,
or

2) a current value in the discharging; and one of i) a voltage increase when the discharging is interrupted by the microprocessor unit or ii) a voltage decrease when the discharging is restarted after the interruption of the discharging by the microprocessor unit, wherein in measuring the internal resistance value of the capacitor unit, the discharging is interrupted when a voltage across the capacitor is decreasing over a period of time during discharging.

3. (Cancelled)

4. (Currently Amended) The power supply apparatus according to claim 2,

wherein the detection unit measures temperature of the capacitor unit in the charging or the discharging,

corrects ~~an~~the internal capacitance value of the capacitor unit and the internal resistance value at each temperature based on a capacitance value difference and a resistance value difference between each of the measured internal capacitance value and the measured internal resistance value and each of a standard internal capacitance value and a standard internal resistance value of the capacitor unit, which are initialized in advance, at the temperature measured in the charging or the discharging, and

judges whether or not the capacitor unit is in a normal state by comparing the corrected internal resistance value with a limit internal resistance value with respect to the corrected internal capacitance value, at the each temperature.

5.-6. (Cancelled)

7. (Currently Amended) The power supply apparatus ~~for a vehicle~~ according to claim 2, wherein ~~at~~the rate of change of voltage per unit time of the capacitor unit in charging or discharging is measured multiple times every predetermined time.

8. (Cancelled)

9. (Currently Amended) The power supply apparatus ~~for a vehicle~~ according to claim 4, wherein ~~at~~the rate of change of voltage per unit time of the capacitor unit in charging or discharging is measured multiple times every predetermined time.

10. (Cancelled)

11. (Currently Amended) The power supply apparatus ~~for a vehicle~~ according to claim 2,

wherein the detection unit measures an internal capacitance value of the capacitor unit from a composite rate of change of voltage per unit time of the capacitor unit based on a plurality of different rates of change of voltage per unit time.

12. (Cancelled)

13. (Currently Amended) The power supply apparatus ~~for a vehicle~~ according to claim 11,

wherein the composite rate of change of voltage per unit time is an average of the plurality of different rates of change of voltage per unit time.

14. (Cancelled)

15. (Previously Presented) A power supply apparatus according to claim 2, wherein said power supply apparatus is for a vehicle and is for use with a battery, wherein said battery is for supplying electric power to a brake of the vehicle.

16. (Previously Presented) A power supply apparatus according to claim 2, further comprising:

an electronic controller for outputting information for controlling braking of the vehicle to a brake based on at least one of information from a brake pedal and information in response to a moving state of the vehicle;

17. (Previously Presented) A power supply apparatus according to claim 2, wherein the detection unit measures an internal capacitance value of the capacitor unit from a rate of change of voltage per unit time of the capacitor unit in charging or discharging, and the detection unit detects an abnormality in the capacitor unit based on the measured internal resistance value and internal capacitance value.